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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,988	08/09/2000	Thomas B. Brown	MS1-565US	5702

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EXAMINER

EL CHANTI, HUSSEIN A

ART UNIT PAPER NUMBER

2157

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/635,988	Applicant(s) BROWN ET AL.	
	Examiner Hussein A. El-chanti	Art Unit 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15, 26, 27, 31, 34, 37 and 49-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-15, 26, 27, 31, 34, 37 and 49-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/5, 6/5, 3/5, 12/5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment

1. This action is responsive to RCE received on Dec. 12, 2005. Claims 49-54 were newly added. Claims 9, 26, 31, 34 and 37 were amended. Claims 9-15, 26-27, 31, 34, 37 and 49-54 are pending examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 37 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 37 recite nothing but the physical characteristics of a form of energy, such as a signal, frequency, voltage, or the strength of a magnetic field, define energy or magnetism, *per se*, and as such are nonstatutory natural phenomena. *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 112 – 14 (1853). See MPEP 2106 IV.B.1. c. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 16 do not specify how the module and computer readable medium perform the method of claim 9.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9-10, 12, 14-15, 26-27, 31, 34 and 49-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Gaudet et al., U.S. patent No. 6,421,348 (referred to hereafter as Gaudet).

As to claims 9, 14, 15, 31 and 34, Gaudet teaches a method, computer readable medium and apparatus for facilitating speedy communication of packets between entities on a network through a communication device, the method comprising:

sending a set of packets from a sending entity to a receiving entity, wherein a transmission delay between packets in the set is intolerable (see col. 5 lines 7-29, plurality of packets are transmitted from a source to a destination);

immediately thereafter, sending at least one "push" packet to avert a transmission delay between packets in the set, wherein the push packet forces the transmission of the set of packets by the communication device to avoid the transmission delay is caused by packet buffering of a communication device on the

network (see col. 5 lines 30-43, the last cell received in the buffer "push packet" forces the buffer to forward the received cells to a broadcast buffer to be transmitted over the network).

As to claim 10, Gaudet teaches the method of claim 9 wherein the set of packets are sent back to back (see col. 5 lines 15-50).

As to claim 12, Gaudet teaches the method of claim 9, wherein the communication device is a proxy server (see col. 5 lines 15-50).

As to claim 26, Gaudet teaches a method for facilitating bandwidth measurement between two entities on a network, the method comprising:

 sending a pair of bandwidth-measurement packets from a sending entity to a receiving entity, wherein a transmission delay between packets in the pair is intolerable (see col. 5 lines 7-29 and col. 2 lines 34-57, plurality of packets are transmitted from a source to a destination);

 immediately thereafter, sending at least one "push" packet to avert a transmission delay between packets in the pair, wherein the push packet forces the transmission of the set of packets by the communication device to avoid the transmission delay is caused by packet buffering of a communication device on the network (see col. 5 lines 30-43, the last cell received in the buffer "push packet" forces the buffer to forward the received cells to a broadcast buffer to be transmitted over the network).

As to claims 49 and 52, Gaudet teaches the method of claims 9 and 26 wherein the push packet is sent from the sending entity (see col. 5 lines 7-42).

As to claims 50 and 53, Gaudet teaches the method of claims 9 and 26 wherein the communication device comprises a device other than the sending entity or the receiving entity (see col. 5 lines 29-51).

As to claims 51 and 54, Gaudet teaches the method of claims 9 and 26 wherein the packet buffering causing the transmission delay is characterized by a buffering action where one or more of the set of packets are buffered into a packet buffer wherein the transmission delay is a result of the packet buffering action (see col. 5 lines 30-41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 13, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaudet in view of Gunninberg.

As to claim 11, Gaudet teaches a method, computer readable medium and apparatus for facilitating speedy communication of packets between entities on a network, the method comprising sending a set of packets from a sending entity to a receiving entity, and immediately thereafter, sending at least one "push" packet to avert a transmission delay between packets in the set.

Gaudet does not explicitly teach the limitation "packets are for measuring the bandwidth between the sending entity and the receiving entity". However Gunninberg teaches a method of determining a connection bandwidth by sending back-to-back

packets, and considering the delays and congestion situations that occurs on a server (see Page 413).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Gaudet by sending packets to determine a bandwidth of a connection as taught by Gunninberg because doing so would allow the system to evaluate the bandwidth more accurately by taking avoiding delays on the network.

As to claim 13, Gunninberg teaches a method as recited in claim 9, wherein the network is TCP (see Page 413).

As to claim 27, Gunninberg teaches a method as recited in claim 26 further comprising receiving a bandwidth calculation based upon measurements related to the pair of packets (see Page 413).

As to claim 37, Gunninberg teaches a modulated data signal having data fields encoded thereon transmitted over a communications channel, comprising:

a field including a "push" packet facilitating minimization of to transmission delay between the first and second packets, wherein the delay is caused by packet buffering of a communication device on the network (see col. 3 lines 30-55).

Gaudet does not explicitly teach the limitation "packets are for measuring the bandwidth between the sending entity and the receiving entity". However Gunninberg teaches a method of determining a connection bandwidth by sending back-to-back packets, and considering the delays and congestion situations that occurs on a server (see Page 413).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Gaudet by sending packets to determine a bandwidth of a connection as taught by Gunninberg because doing so would allow the system to evaluate the bandwidth more accurately by taking avoiding delays on the network.

Response to Arguments

4. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejection.
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A. El-chanti whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2157

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein El-chanti

Feb. 24, 2006


ARIELLE
PRIMARY EXAMINER